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•	(FILE 'HOME' ENTERED AT 15:11:41 ON 19 NOV 2007)	
L1	FILE 'REGISTRY' ENTERED AT 15:12:03 ON 19 NOV 2007 STRUCTURE UPLOADED	
L2	1 S L1 SSS SAM	
L3	11 S L1 SSS FULL	
	FILE 'CAPLUS, MEDLINE' ENTERED AT 15:14:33 ON 19 NOV 2007	
L4	3 S L3	
L5	2 S L4 AND PAIN	
	FILE 'REGISTRY' ENTERED AT 15:51:39 ON 19 NOV 2007	
L6	STRUCTURE UPLOADED	
L7	1 S L6	
<b>L8</b>	13 S L6 SSS FULL	,
	THE LOADING MEDITURE ENGREDED AND 15 F4 F4 ON 10 NOW 2005	1
	FILE 'CAPLUS, MEDLINE' ENTERED AT 15:54:54 ON 19 NOV 2007	/
L9	3 S L8	

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C:\Program Files\Stnexp\Queries\10583992-a.str

## chain nodes:

17 19 20 27 28 29 30 31 32 33 34 35 36 37 38 39 41 42 43 44 45 46 47 48 49 50 ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 21 22 23 24 25 26 40

chain bonds:

2-19 3-37 4-36 7-42 7-43 8-41 9-44 11-35 12-34 13-20 13-39 14-38 16-17 20-25 21-28 21-46 22-29 22-48 23-30 23-49 25-47 26-27 26-45 30-31 30-33 31-32 31-50 ring bonds :

1-2 1-6 1-15 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-16 9-10 9-11 10-14 10-40 11-12 12-13 13-14 14-15 16-18 18-40 21-22 21-26 22-23 23-24 24-25 25-26 exact/norm bonds :

1-15 2-19 5-7 6-10 7-8 8-9 8-16 9-10 9-11 10-14 10-40 11-12 12-13 13-14 13-20 14-15 16-18 18-40 20-25 21-22 21-26 21-28 22-23 22-29 23-24 24-25 25-26 26-27 30-31 30-33 31-50 exact bonds :

3-37 4-36 7-42 7-43 8-41 9-44 11-35 12-34 13-39 14-38 16-17 21-46 22-48 23-30 23-49 25-47 26-45 31-32

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6

### Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLAS\$18:Atom 19:CLAS\$20:CLAS\$21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:CLAS\$28:CLAS\$29:CLAS\$30:CLAS\$31:CLAS\$32:CLAS\$33:CLAS\$34:CLAS\$35:CLAS

36:CLAS\$37:CLAS\$38:CLAS\$39:CLAS\$40:Atom 41:CLAS\$42:CLAS\$43:CLAS\$44:CLAS\$ 45:CLAS\$46:CLAS\$47:CLAS\$48:CLAS\$49:CLAS\$50:CLAS\$

C:\Program Files\Stnexp\Queries\10583992-b.str

chain nodes:

17 19 20 27 28 29 30 31 32 33 34 35 36 37 38 40 41 42 43 44 45 46 47 48 ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 21 22 23 24 25 26 39

chain bonds:

2-19 3-36 4-35 7-41 7-42 8-40 9-43 11-34 12-33 13-20 13-38 14-37 16-17 20-25 21-28 21-45 22-29 22-47 23-30 23-48 25-46 26-27 26-44 30-31 30-32 ring bonds :

1-2 1-6 1-15 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-16 9-10 9-11 10-14 10-39 11-12 12-13 13-14 14-15 16-18 18-39 21-22 21-26 22-23 23-24 24-25 25-26

exact/norm bonds:

1-15 2-19 5-7 6-10 7-8 8-9 8-16 9-10 9-11 10-14 10-39 11-12 12-13 13-14 13-20 14-15 16-18 18-39 20-25 21-22 21-26 21-28 22-23 22-29 23-24 24-25 25-26 26-27 30-31 30-32

exact bonds:

3-36 4-35 7-41 7-42 8-40 9-43 11-34 12-33 13-38 14-37 16-17 21-45 22-47 23-30 23-48 25-46 26-44

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6

### Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLAS\$18:Atom 19:CLAS\$20:CLAS\$21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:CLAS\$28:CLAS\$29:CLAS\$30:CLAS\$31:CLAS\$32:CLAS\$33:CLAS\$34:CLAS\$35:CLAS

36:CLAS\$37:CLAS\$38:CLAS\$39:Atom 40:CLAS\$41:CLAS\$42:CLAS\$43:CLAS\$44:CLAS\$ 45:CLAS\$46:CLAS\$47:CLAS\$48:CLAS\$

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:549736 CAPLUS

DOCUMENT NUMBER: 143:60187

TITLE: Method of preparation of new derivative of

morphine-6-glucuronide, pharmaceutical composition containing it, and its use for the treatment of pain Temsamani, Jamal; Lahana, Roger; Mouchet, Patrick

INVENTOR(S): Temsamani, J. PATENT ASSIGNEE(S): Synt:em, Fr.

SOURCE: Sync.em, Fr. Demande, 19 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
FR 2864082		FR 2003-15160	20031222
FR 2864082	B1 20060310		
AU 2004308720	A1 20050714	AU 2004-308720	20041222
CA 2548921	A1 20050714	CA 2004-2548921	20041222
WO 2005063263	A1 20050714	WO 2004-FR3342	20041222
		BA, BB, BG, BR, BW,	
CN, CO, CR	. CU. CZ. DE. DK.	DM, DZ, EC, EE, EG,	ES. FI. GB. GD.
• •		IN, IS, JP, KE, KG,	
		MD, MG, MK, MN, MW,	
•		RO, RU, SC, SD, SE,	
		UG, US, UZ, VC, VN,	
•		NA, SD, SL, SZ, TZ,	
· · · · · · · · · · · · · · · · · · ·		TM, AT, BE, BG, CH,	
		IE, IS, IT, LT, LU,	
RO, SE, SI	, SK, TR, BF, BJ,	CF, CG, CI, CM, GA,	GN, GQ, GW, ML,
MR, NE, SN	, TD, TG		
EP 1696935	A1 20060906	EP 2004-816470	20041222
EP 1696935	B1 20070404		
R: AT, BE, CH	, DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
		BG, CZ, EE, HU, PL,	
AT 358491	T 20070415	AT 2004-816470	20041222
		US 2006-583992 ·	
PRIORITY APPLN. INFO.:		FR 2003-15160	
		WO 2004-FR3342	
OTHER SOURCE(S):	CASREACT 143:60		

The invention relates to new derivs. I [R1 = (un)branched C1-10-alkyl, optionally substituted with alkyl (optionally containing NH, O, S); R2 = H, (un)branched C1-5-alkyl, aryl heteroaryl, (C1-5-alkyl)aryl (optionally substituted with C1-4-alkyl)] of morphine 6-glucuronide, their method of preparation like their uses in therapy, in particular as analgesics. Thus, morphine-6-glucuronide cysteamine amide I (R1 = CH2CH2, R2 = H) was prepared from morphine 6-glucuronide via amidation with cystamine, .

NH2(CH2)2SS(CH2)2NH2, in DMF containing EtN(CHMe2)2 and PyBOP followed by reduction with P(CH2CO2H)3 in aqueous MeCN containing catalytic CF3CO2H.

IT 854701-23-8P 854701-25-0P 854701-26-1P

IT 854701-23-8P 854701-25-0P 854701-26-1P
854701-27-2P 854701-28-3P 854701-29-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of new cysteamine derivs. of morphine-6-glucuronide and pharmaceutical compns. for the treatment of the pain)

RN 854701-23-8 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 854701-25-0 CAPLUS

CN Acetic acid, [[1-0-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]mercapto-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 854701-26-1 CAPLUS

CN Acetic acid, [[1-0-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]mercapto-, methyl ester (9CI) (CA INDEX NAME)

RN 854701-27-2 CAPLUS

CN Acetic acid, [[1-O-[ $(5\alpha,6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]mercapto-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 854701-28-3 CAPLUS

CN Butanoic acid,  $2-[[1-O-[(5\alpha,6\alpha)-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]-\beta-D-glucopyranuronoyl]amino]-2-mercapto-3-methyl-, (2S)- (9CI) (CA INDEX NAME)$ 

Absolute stereochemistry.

RN 854701-29-4 CAPLUS

CN Glycine, N-[4-amino-4-[[1-O-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]-1-oxobutyl]-D-cysteinyl- (9CI) (CA INDEX NAME)

IT 854701-24-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of new cysteamine derivs. of morphine-6-glucuronide and pharmaceutical compns. for the treatment of the pain)

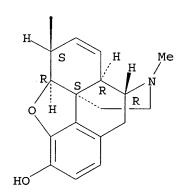
RN 854701-24-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide, N,N'-(dithiodi-2,1-ethanediyl)bis[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-B



REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

2

ACCESSION NUMBER:

2002:675880 CAPLUS

DOCUMENT NUMBER:

137:222015

TITLE:

Pharmaceutical compositions comprising an analgesic molecule linked to a vector that can vectorise said

molecule through the hematoencephalic barrier

INVENTOR(S):

Temsamani, Jamal; Rees, Anthony R.; Clair, Philippe

PATENT ASSIGNEE(S): SYNT:EM, Fr.

SOURCE:

PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE APPLICATION NO.

DATE

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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
             GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                20020830
                                           FR 2001-2504
     FR 2821272
                         Α1
                                                                  20010223
     FR 2821272
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                                20041217
     CA 2438824
                          A1
                                20020906
                                           CA 2002-2438824
                                                                  20020222
     AU 2002238687
                         A1
                                20020912
                                           AU 2002-238687
                                                                  20020222
                                           EP 2002-704883
     EP 1397161
                         A2
                                20040317
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     JP 2004529886
                                           JP 2002-567359
                         т
                                20040930
                                                                  20020222
     US 2004248806
                          Α1
                                20041209
                                           US 2003-468412
                                                                  20031222
PRIORITY APPLN. INFO.:
                                           FR 2001-2504
                                                                  20010223
                                           WO 2002-FR667
                                                               W
                                                                  20020222
AB
     The invention relates to compds. comprising an analgesic mol. which is
     selected from morphine and the derivs. and metabolites thereof and which
     is vectorized by means of its link to a vector such that said analgesic
     mol. passes through the hematoencephalic barrier. The invention also
     relates to the use of said compds. for the preparation of medicaments that are
     used to treat pain. Morphine-6-glucuronide was conjugated to a
                  The conjugated morphine had significantly higher and longer
     analgesic activity and passed blood brain barrier 100 times more than
     unconjugated morphine after 60 s perfusion in guinea pigs.
     454650-18-1P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (pharmaceutical compns. comprising analgesic mol. linked to vector for
       mol. through hematoencephalic barrier)
RN
     454650-18-1 CAPLUS
CN
     L-Phenylalanine, N2-[3-[[2-[[1-0-[(5\alpha,6\alpha)-7,8-didehydro-4,5-
     epoxy-3-hydroxy-17-methylmorphinan-6-yl]-\beta-D-
     glucopyranuronoyl]amino]ethyl]dithio]-1-oxopropyl]-L-arginyl-L-arginyl-L-
     leucyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA
     INDEX NAME)
```

WO 2002-FR667

20020222

Absolute stereochemistry.

WO 2002067994

WO 2002067994

A2

**A3** 

20020906

20031224

PAGE 1-A

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1997:518937 CAPLUS

DOCUMENT NUMBER:

127:136035

TITLE:

Glycoconjugates of opioids

INVENTOR(S):

Cowie, Diana; Valencia Paera, Gregori

PATENT ASSIGNEE(S):

Farmhispania, S.A., Spain; Cowie, Diana; Valencia

SOURCE:

Parera, Gregori PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Spanish

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 9721416	A2 19970619	WO 1996-ES214	19961115
WO 9721416	A3 19970912		
W: CA, JP, US		•	
RW: AT, BE, CH	, DE, DK, ES, FI,	FR, GB, GR, IE, IT, LU	, MC, NL, PT, SE
CA 2211596	A1 19970619	CA 1996-2211596	19961115
EP 816375	. A1 19980107	EP 1996-938222	19961115
R: AT, BE, CH	DE, DK, ES, FR,	GB, GR, IT, LI, LU, NL	, SE, MC, PT,
IE, FI			·
JP 10513485	T 19981222	JP 1996-521758	19961115
PRIORITY APPLN. INFO.:		ES 1995-2346	A 19951129

OTHER SOURCE(S):

MARPAT 127:136035

AB Glycoconjugates of biol. active opioids were prepared which have at least one residue of carbohydrate linked to the opioid via an O- or C-glycoside bond. Thus, 6-morphinyl- $\beta$ -D-glucopyranoside acetate was prepared by reaction of tetra-acetyl- $\alpha$ -D-glucopyranosyl bromide with 3-O-acetylmorphine, followed by saponification with MeONa-MeOH.

IT 192768-56-2P 192768-57-3P 192769-04-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of glycoconjugates of opioids)

RN 192768-56-2 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 192768-57-3 CAPLUS

CN  $\beta$ -D-Galactopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me 
$$(CH_2)_7$$
 Me  $(CH_2)_7$  M

RN 192769-04-3 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 192768-56-2 CMF C31 H44 N2 O8

Me N 
$$(CH_2)_{7}$$
 Me  $(CH_2)_{7}$  Me OH OH

CM 2

CRN 64-19-7 CMF C2 H4 O2

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN L9

ACCESSION NUMBER:

2005:549736 CAPLUS

DOCUMENT NUMBER:

143:60187

TITLE:

Method of preparation of new derivative of

morphine-6-glucuronide, pharmaceutical composition containing it, and its use for the treatment of pain Temsamani, Jamal; Lahana, Roger; Mouchet, Patrick

INVENTOR(S): PATENT ASSIGNEE(S):

Synt:em, Fr.

SOURCE:

Fr. Demande, 19 pp. CODEN: FRXXBL

Patent

DOCUMENT TYPE:

LANGUAGE:

French

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
FR 2864082	A1 20050624	FR 2003-15160	20031222
FR 2864082			
AU 2004308720	A1 20050714	AU 2004-308720	20041222
CA 2548921	A1 20050714	CA 2004-2548921	20041222
		WO 2004-FR3342	
		BA, BB, BG, BR, BW,	
		DM, DZ, EC, EE, EG,	
		IN, IS, JP, KE, KG,	
		MD, MG, MK, MN, MW,	•
		RO, RU, SC, SD, SE,	
		UG, US, UZ, VC, VN,	· · · · · · · · · · · · · · · · · · ·
, , ,		NA, SD, SL, SZ, TZ,	
		TM, AT, BE, BG, CH,	
		IE, IS, IT, LT, LU,	
RO, SE, SI,	SK, TR, BF, BJ,	CF, CG, CI, CM, GA,	GN, GQ, GW, ML,
MR, NE, SN,	TD, TG		
EP 1696935	A1 20060906	EP 2004-816470	20041222
EP 1696935	B1 20070404		
R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
		BG, CZ, EE, HU, PL,	
AT 358491	T 20070415	AT 2004-816470	20041222
		US 2006-583992	
PRIORITY APPLN. INFO.:		FR 2003-15160	A 20031222
		WO 2004-FR3342	
OTHER SOURCE(S):	CASREACT 143:601		

The invention relates to new derivs. I [R1 = (un)branched C1-10-alkyl, AB optionally substituted with alkyl (optionally containing NH, O, S); R2 = H, (un)branched C1-5-alkyl, aryl heteroaryl, (C1-5-alkyl)aryl (optionally substituted with C1-4-alkyl)] of morphine 6-glucuronide, their method of preparation like their uses in therapy, in particular as analgesics. Thus, morphine-6-glucuronide cysteamine amide I (R1 = CH2CH2, R2 = H) was prepared from morphine 6-glucuronide via amidation with cystamine, NH2(CH2)2SS(CH2)2NH2, in DMF containing EtN(CHMe2)2 and PyBOP followed by reduction with P(CH2CO2H)3 in aqueous MeCN containing catalytic CF3CO2H. 854701-23-8P 854701-25-0P 854701-26-1P ΙT 854701-27-2P 854701-28-3P 854701-29-4P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses) (preparation of new cysteamine derivs. of morphine-6-glucuronide and

pharmaceutical compns. for the treatment of the pain)

RN854701-23-8 CAPLUS

 $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-CNepoxy-3-hydroxy-17-methylmorphinan-6-yl N-(2-mercaptoethyl)- (9CI) INDEX NAME)

Absolute stereochemistry.

RN 854701-25-0 CAPLUS

Acetic acid,  $[[1-0-[(5\alpha,6\alpha)-7,8-didehydro-4,5-epoxy-3-hydroxy-$ CN 17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]mercapto- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

854701-26-1 CAPLUS Acetic acid, [[1-0-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-CN 17-methylmorphinan-6-yl]-β-D-glucopyranuronoyl]amino]mercapto-, methyl ester (9CI) (CA INDEX NAME)

RN 854701-27-2 CAPLUS

CN Acetic acid, [[1-O-[ $(5\alpha,6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]mercapto-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 854701-28-3 CAPLUS

CN Butanoic acid, 2-[[1-0-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]-2-mercapto-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 854701-29-4 CAPLUS

CN Glycine, N-[4-amino-4-[[1-0-[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl]- $\beta$ -D-glucopyranuronoyl]amino]-1-oxobutyl]-D-cysteinyl- (9CI) (CA INDEX NAME)

Me O 
$$\frac{H}{N}$$
  $\frac{H}{N}$   $\frac{H}{N}$   $\frac{CO_2H}{N}$   $\frac{R}{N}$   $\frac{S}{N}$   $\frac{H}{N}$   $\frac{CO_2H}{N}$   $\frac{R}{N}$   $\frac{S}{N}$   $\frac{H}{N}$   $\frac{CO_2H}{N}$   $\frac{R}{N}$   $\frac{S}{N}$   $\frac{H}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{H}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{H}{N}$   $\frac{S}{N}$   $\frac{S}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{S}{N}$   $\frac{S}{N}$ 

IT 854701-24-9P

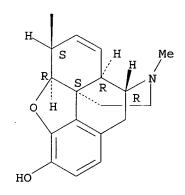
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of new cysteamine derivs. of morphine-6-glucuronide and pharmaceutical compns. for the treatment of the pain)

RN 854701-24-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide, N,N'-(dithiodi-2,1-ethanediyl)bis[(5 $\alpha$ ,6 $\alpha$ )-7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl (9CI) (CA INDEX NAME)

PAGE 2-B



REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

2

ACCESSION NUMBER:

2002:675880 CAPLUS

DOCUMENT NUMBER:

137:222015

TITLE:

Pharmaceutical compositions comprising an analgesic

molecule linked to a vector that can vectorise said

molecule through the hematoencephalic barrier

INVENTOR(S):

Temsamani, Jamal; Rees, Anthony R.; Clair, Philippe

PATENT ASSIGNEE(S):

SYNT:EM, Fr.

SOURCE:

PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: FAMILY ACC. NUM. COUNT:

French

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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ALIBICATION NO.

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20020222
     WO 2002067994
                          A2
                                20020906
                                             WO 2002-FR667
                                20031224
     WO 2002067994
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            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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             KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
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     FR 2821272
                          A1
                                20020830
                                             FR 2001-2504
                                                                     20010223
     FR 2821272
                          В1
                                20041217
                                                                    20020222
     CA 2438824
                          A1
                                20020906
                                             CA 2002-2438824
     AU 2002238687
                          A1
                                20020912
                                             AU 2002-238687
                                                                    20020222
                          A2
                             ,
                                20040317
                                             EP 2002-704883
                                                                    20020222
     EP 1397161
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2004529886
                          Т
                                20040930
                                             JP 2002-567359
                                                                     20020222
                                             US 2003-468412
                                                                     20031222
     US 2004248806
                          A1
                                20041209
PRIORITY APPLN. INFO.:
                                             FR 2001-2504
                                                                . A
                                                                    20010223
                                             WO 2002-FR667
                                                                    20020222
     The invention relates to compds. comprising an analgesic mol. which is
AB
     selected from morphine and the derivs. and metabolites thereof and which
     is vectorized by means of its link to a vector such that said analgesic
     mol. passes through the hematoencephalic barrier. The invention also
     relates to the use of said compds. for the preparation of medicaments that are
     used to treat pain. Morphine-6-glucuronide was conjugated to a
     decapeptide. The conjugated morphine had significantly higher and longer
     analgesic activity and passed blood brain barrier 100 times more than
     unconjugated morphine after 60 s perfusion in guinea pigs.
IT
     454650-18-1P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (pharmaceutical compns. comprising analgesic mol. linked to vector for
        mol. through hematoencephalic barrier)
RN
     454650-18-1 CAPLUS
CN
     L-Phenylalanine, N2-[3-[[2-[[1-0-[(5\alpha,6\alpha)-7,8-didehydro-4,5-
     epoxy-3-hydroxy-17-methylmorphinan-6-yl]-\beta-D-
     glucopyranuronoyl]amino]ethyl]dithio]-1-oxopropyl]-L-arginyl-L-arginyl-L-
     leucyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA
     INDEX NAME)
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Absolute stereochemistry.

PAGE 1-A

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1997:518937 CAPLUS

DOCUMENT NUMBER:

127:136035

TITLE:

Glycoconjugates of opioids

INVENTOR(S):

PATENT ASSIGNEE(S):

Cowie, Diana; Valencia Paera, Gregori Farmhispania, S.A., Spain; Cowie, Diana; Valencia

SOURCE:

Parera, Gregori PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Spanish

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9721416	A2	19970619	WO 1996-ES214	19961115
WO 9721416	A3	19970912		-
W: CA, JP, US				
RW: AT, BE, CH,	DE, DK	, ES, FI, F	R, GB, GR, IE, IT,	LU, MC, NL, PT, SE
CA 2211596	A1	19970619	CA 1996-2211596	19961115
EP 816375	A1	19980107	EP 1996-938222	19961115
R: AT, BE, CH,	DE, DK	, ES, FR, G	B, GR, IT, LI, LU,	NL, SE, MC, PT,
IE, FI				
JP 10513485	T	19981222	JP 1996-521758	19961115
PRIORITY APPLN. INFO.:			ES 1995-2346	A 19951129

OTHER SOURCE(S):

MARPAT 127:136035

Glycoconjugates of biol. active opioids were prepared which have at least one residue of carbohydrate linked to the opioid via an O- or C-glycoside bond. Thus, 6-morphinyl- $\beta$ -D-glucopyranoside acetate was prepared by reaction of tetra-acetyl- $\alpha$ -D-glucopyranosyl bromide with

3-O-acetylmorphine, followed by saponification with MeONa-MeOH.

IT 192768-56-2P 192768-57-3P 192768-68-6P

192768-69-7P 192769-04-3P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of glycoconjugates of opioids)

RN 192768-56-2 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 192768-57-3 CAPLUS

CN  $\beta$ -D-Galactopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me Me 
$$(CH_2)_7$$
 Me  $(CH_2)_7$  Me  $(CH_2)_7$ 

RN 192768-68-6 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl (9CI) (CA INDEX NAME)

RN 192768-69-7 CAPLUS

CN  $\beta$ -D-Galactopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 192769-04-3 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronamide,  $(5\alpha, 6\alpha)$ -7,8-didehydro-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-yl N-octyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 192768-56-2 CMF C31 H44 N2 O8

Absolute stereochemistry.

Me N 
$$(CH_2)_7$$
 Me  $(CH_2)_7$  Me OH OH

CM 2

CRN 64-19-7

# => d his

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